

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
ASMJP.090AUSAPPLICATION NO.
09/093,024INFORMATION DISCLOSURE STATEMENT
BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

APPLICANT
Todd, et al.FILING DATE
November 13, 2001GROUP
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
AC	1.	4,781,942	11/01/88	Leyden et al.			
	2.	4,883,755	09/05/89	Hess et al.			
	3.	4,894,352	01/16/90	Lane et al.			
	4.	4,992,306	02/12/91	Hochberg et al.			
	5.	5,011,706	04/30/91	Tarhay et al.			
	6.	5,028,566	07/02/91	Legendijk			
	7.	5,231,058	07/27/93	Maeda et al.			
	8.	5,240,813	08/31/93	Watanabe et al.			
	9.	5,244,698	09/14/93	Ishihara et al.			
	10.	5,314,724	05/24/94	Tsukune et al.			
	11.	5,324,539	06/28/94	Maeda et al.			
	12.	5,380,555	01/10/95	Mine et al.			
	13.	5,433,786	07/18/95	Hu et al.			
	14.	5,494,712	02/27/96	Hu et al.			
	15.	5,554,570	09/10/96	Maeda et al.			
	16.	5,563,105	10/08/96	Dobuzinsky et al.			
	17.	5,703,404	12/30/97	Matsuura			
	18.	5,840,821	11/24/98	Nakano et al.			
	19.	5,876,798	03/02/99	Vassiliev			
	20.	5,989,998	11/23/99	Sugahara et al.			
	21.	5,998,522	12/07/99	Nakano et al.			
	22.	6,045,877	04/04/00	Gleason et al.			
	23.	6,051,321	04/18/00	Lee et al.			
	24.	6,051,508	04/18/00	Takase et al.			
	25.	6,054,379	04/25/00	Yau et al.			
AC	26.	6,068,884	05/30/00	Rose et al.			

EXAMINER

DATE CONSIDERED

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FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
Ac	27.	WO 97/41592	11/06/1997	PCT				
	28.	WO 97/40207	10/30/97	PCT				
	29.	WO 99/55528	11/04/99	PCT				
	30.	WO 99/60621	11/25/1999	PCT				
	31.	WO 99/41423	08/19/1999	PCT				
	32.	WO 99/21708	05/06/1999	PCT				
	33.	EPO 367 004 B1	12/15/93	EPO				
	34.	EP 0 436 185 B1	03/20/96	EPO				
	35.	EP 0 723 600 B1	07/07/99	EPO				
	36.	EP 0 771 886 A1	05/07/97	EPO				
	37.	EP 0 935 283 A2	08/11/99	EPO				
	38.	EP 0 960 958 A2	12/01/99	EPO				
	39.	EP 0 706 216 A2	04/10/1996	EPO				
	40.	JP 09293716	11/11/97	JP (Abstract only)			X	
	41.	JP 11176829	07/02/99	JP (Abstract only)			X	

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
Ac	42.	Bayer et al., <i>Overall kinetics of SiOx remote-PECVD using different organosilicon monomers</i> , Surface and Coatings Technology, 116-119 (1999) 874-878
	43.	Berjoan et al., <i>XPS and XPS valence band characterizations of amorphous or polymeric silicon based thin films prepared by PACVD from organosilicon monomers</i> , J. Phys. IV France 9 (1989) pp. 1059-1068.
	44.	Constant et al., <i>Some Properties of amorphous SiXC1-x (H) alloys prepared by CVD from various organosilicon compounds</i> , Solid State Chemistry, 1982, pp. 267-270
	45.	Deville et al., <i>An AES study of the influence of carbon on the chemical structure of some oxide films deposited by PECVD of organosilicon precursors</i> , Applied Surface Science 137 (1999) 136-141
	46.	Fonseca et al., <i>Plasma Polymerization of Tetramethylsilane</i> , Am. Chemical Society, 1993, 5, 1676-1682
	47.	Inoue et al., <i>Mass spectroscopy in plasma-enhanced chemical vapor deposition of silicon-oxide films using tetramethoxysilane</i> , Thin Solid Films 316 (1998) 79-84
	48.	Inoue et al., <i>Spectroscopic studies on preparation of silicon oxide films by PECVD using organosilicon compounds</i> , Plasma Sources Sci. Technol. 5 (1996) 339-343
	49.	Loboda, M.J., <i>New solutions for intermetal dielectrics using trimethylsilane-based PECVD processes</i> , Microelectronic Engineering 50 (2000) 15-23
	50.	Nguyen et al., <i>Plasma organosilicon polymers</i> , J. Electrochem. Soc., August 1985, pp. 1925-1932

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AC	51. Shirafuji et al., <i>PECVD of Fluorocarbon/SiO composite thin films using C4F8 and HMDSO</i> , Plasmas and Polymers, Vol. 4, No. 1, 1999, pp. 57-75
	52. Shirafuji et al., <i>PE-CVD of fluorocarbon/silicon oxide composite thin films from TFE and HMDSO</i> , Mat. Res. Soc. Symp. Proc. Vol. 544, pp. 173-178
	53. Shirafuji et al., <i>Plasma copolymerization of tetrafluoroethylene/hexamethyldisiloxane and In Situ Fourier Transform Infrared spectroscopy of its gas phase</i> , Jpn. J. Appl. Phys. Vol. 38 (1999) pp. 4520-4526
	54. Sugahara et al., <i>Low Dielectric constant carbon containing SiO2 films deposited by PECVD technique using a novel CVD precursor</i> , DUMIC Conference, Feb. 10-11, 1997, pp. 19-25
	55. Thomas et al., <i>Plasma etching and surface analysis of a SiC:H films deposited by low temperature plasma enhanced chemical vapor deposition</i> , Mat. Res. Soc. Symp. Proc. Vol. 334, 1994, pp. 445-450
	56. Matsuki, N., U.S. Patent Application No. 09/243,156 <i>Silicone Polymer insulation film on semiconductor substrate and method for forming the film</i> , filed February 2, 1999.
	57. Indrajit Banerjee, et al., "Characterization of Chemical Vapor Deposited Amorphous Fluorocarbons for Low Dielectric Constant Interlayer Dielectrics," J. Electrochem. Soc., Vol. 146(8), p. 2219 (1999).
	58. Sang-Soo Han, et al., "Deposition of Fluorinated Amorphous Carbon Thin Films as a Low-Dielectric Constant Material," J. Electrochem. Soc., Vol. 146(8), p.3383 (1999).
	59. H. Beckers, et al., "Synthesis and Properties of (Trifluoromethyl) trichlorosilane, a Versatile Precursor for CF3Si Compounds," J. Organometal. Chem., Vol. 316, pp. 41-50, (1986).
	60. C.A. Costello and J.J. McCarthy, "Introduction of Organic Functional Groups onto the Surface of Poly(tetrafluoroethylene)," Proceedings of the ACS Division of Polymeric Materials Science and Engineering, Vol. 55 p. 893 (1986).
	61. K.G. Sharp and T.D. Coyle, "Synthesis and Some Properties of Trifluoro(trifluoromethyl) silane," J. Fluorine Chem., Vol. Q, pp. 249-251 (1971/72).
	62. Limb, Scott J., et al., "Growth of fluorocarbon polymer thin films with high CF2 fractions and low dangling bond concentrations by thermal chemical vapor deposition," App. Phys. Lett., Vol. 68(20), p. 2810 (1996).
	63. Washburne, Stephen S., et al. "Chloraminosilanes: I: The Preparation of Chloro(Dimethylamino) Hydrogen Silanes," Inorg. Nucl. Chem. Letters Vol. 5, pp. 17-19, Pergamon Press.
	64. Savage, Charles R., et al., "Spectroscopic Characterization of Films Obtained in Pulsed Radio-Frequency Plasma Discharges of Fluorocarbon Monomers," Structure-Property Relations in Polymers, pp. 745-768, American Chemical Society, (1993).
	65. Sharp, K.G., et al., "Perfluoro(alkylsilanes). II: Trifluoro(trifluoromethyl) silane and Trifluoro(pentafluoroethyl) silane," Inorg. Chem., Vol. 11, No. 6, pp. 1259-1264, (1972).
	66. Pam Frost Gorder, "Researchers Pioneer Reqniques to Lubicate Microdevices," Research News, Ohio State University, http://www.acs.ohio-state.edu/units/research , (3/23/01).
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